

CLAIMS: I Claim:

1. A two stroke, reciprocating freezer having a power input shaft, and one or more units, each unit comprising:
 - a) a cylinder, closed at one end and containing a movable power piston which moves in a reciprocating manner and is connected to said power input shaft by a connecting rod;
 - b) a displacer located within said cylinder and between said power piston and the top of said cylinder;
 - c) a means to move said displacer;
 - d) a heat sink;
 - e) a path from said cylinder below said displacer through said heat sink back into said cylinder above said displacer;
 - f) valves to isolate said path;
 - g) a load;
 - h) a valve and a port to isolate said load;
 - i) means to operate said valves.
2. A freezer as recited in claim 1 that contains heat exchanger low-pressure side located downstream of said load and heat exchanger high-pressure side located down stream of said heat sink.
3. A freezer as recited in claim 1 wherein said means to move said displacer is a cam attached to said power input shaft with a cam follower attached to said displacer and extending through said power piston to a groove in said cam.
4. A freezer as recited in claim 1 wherein air is taken into the freezer and exited from the freezer.

5. A freezer as recited in claim 1 containing a pressurizing valve, so that the freezer can be operated pressurized.
6. A freezer as recited in claim 1 containing additional compressors, each additional compressor contains an additional displacer, an additional heat sink, a path from said cylinder below said additional displacer through said additional heat sink back into said cylinder above said additional displacer, and valves to isolate said path.
7. A freezer as recited in claim 4 wherein said means to move said additional displacers are said cam attached to said power input shaft with cam followers attached to said additional displacers and extending through said power piston to an additional groove in said cam.